REMARKS

Claims 1-10 are presented for examination.

The applicants respectfully submit that no new matter has been added. It is believed that this Amendment is fully responsive to the Office Action dated **May 31, 2006**.

Claims 1-10 define a semiconductor device wherein carbon nanotubes formed in a hole of SiC substrate are used as a radiator for an element. This limitation achieves the following unexpected result, as disclosed in page 3, lines 10-19 of the specification:

> According to a first aspect of the present invention, a SiC substrate more excellent in thermal conductivity than, a silicon substrate is used, and a heat conductor is made of carbon nanotubes extremely high in thermal conductivity. Accordingly, heat radiated from the SiC substrate is rapidly radiated from the SiC substrate and the heat conductor, and a temperature increase of the element can be prevented, thus making it possible to sufficiently bring out characteristics of the element.

Claims 1-2 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Iwasaki (US006278231B1).

The Office Action asserts that **Iwasaki** teaches the present invention recited in claims 1-2 and 5-7. However, **Iwasaki** fails to teach or suggest the claimed invention because the reference fails to disclose a "hole" that is formed in "SiC substrate" as recited in claims 1 and 7.

Claims 1 and 7 clearly recite a "*hole*" that is formed in "*SiC substrate*." However, unlike the claimed invention, in the invention of **Iwasaki**, a "*nanohole*" is formed in an *anodized aluminum film*, and not in *SiC substrate*. **Iwasaki** teaches in col. 4, lines 18-31, that nanoholes can be formed in aluminum film by anodizing the aluminum film formed on a substrate. For example, in Figs. 18 and 19 of **Iwasaki**, "carbon nanotube 202" is formed in "(nano) hole 14" (see Fig. 2) of "anodized film 13." Furthermore, ***Iwasaki discloses "substrate 11" separately from "anodized film 13."*** As such, the "anodized film 13" cannot be interpreted as a part of "substrate." Therefore, the structure of **Iwasaki** in which the hole is formed in "anodized film 13" can be distinguished over the present invention, in which the hole is formed in the substrate,

Iwasaki fails to teach or suggest the claimed invention because the reference fails to disclose a "hole" that is formed in "SiC substrate" as recited in claims 1 and 7. For this reason, it is respectfully requested that this rejection be reconsidered and withdrawn.

Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki in view of Sung (US 20060091532A1).

The Office Action asserts that the **Iwasaki** fails to disclose a lower layer of the electrode being a titanium layer, and an element on the opposite side of the SiC substrate, and cites **Sung** for these disclosures.

Iwasaki and **Sung** in combination fail to disclose the present invention recited in claims 3

and 10 for the reasons discussed above, namely that **Iwasaki** fails to teach or suggest the claimed invention because the reference fails to disclose a "hole" that is formed in "SiC substrate."

In addition, the combined disclosure of **Iwasaki** and **Sung** fail to teach the claimed invention because the **Sung** does not supply the missing elements of a lower layer of the electrode being a titanium layer, and an element on the opposite side of the SiC substrate. Contrary to the Office Action's assertion that **Sung** discloses a base layer of titanium, in fact, **Sung** merely teaches that carbonaceous particles are bound together using an interstitial material containing carbide former such as titanium (*see* paragraph 0049 and 0063). In other words, what **Sung** discloses is *carbide former of titanium*, which is clearly distinguished from titanium layer of recited in present claim 3.

Iwasaki and **Sung** fail to render obvious the present invention recited in claims 3 and 10 because the combined disclosure of the references fail to teach the following:

- a "hole" that is formed in "SiC substrate"; and,
- a lower layer of the electrode being a titanium layer.

For the reasons discussed here and above, it is respectfully requested that this rejection be reconsidered and withdrawn.

In view of the aforementioned amendments and accompanying remarks, claims 1-10 are in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicants undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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Enclosures:

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